

ABSTRACT

The present invention provides a manufacturing method for an oxide-dispersed alloy in which dispersed particles consisting of oxides of one or two or more kinds of additive metals are dispersed in a matrix metal, comprising the steps of (a) manufacturing alloy powder or an alloy wire rod consisting of the matrix metal and the additive metal; (b) oxidizing the additive metal in the alloy powder by water to form dispersed particles by introducing the alloy powder or alloy wire rod into a high-energy ball mill with water and by making agitation; and (c) molded in solidifying the alloy powder or alloy wire rod after oxidation. The present invention is especially useful in manufacturing an oxide-dispersed alloy in which the free energy of oxide formation of the matrix metal is higher than water standard free energy of formation, and the free energy of oxide formation of the additive metal is lower than water standard free energy of formation.